

# **Questions & Answers concerning the Wood Furniture Manufacturing NESHAP**

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**THIS WORKSHEET WAS ORIGINALLY USED FOR WORKSHOPS. THEREFORE MANY QUESTIONS HAVE BEEN LEFT BLANK FOR THE PURPOSES OF DISCUSSION.**

This is a compilation of questions and answers concerning interpretations of the Wood Furniture Manufacturing NESHAP. For further confidential compliance assistance, contact Karen Teliha of the Compliance and Technical Assistance Program at 1-800-451-6027 ext. 3-5555 or 317-233-5555.

**The statements in this factsheet are intended solely as guidance. This factsheet is not intended, nor can it be relied upon, to create any rights enforceable by any party in litigation with the Indiana Department of Environmental Management. Wood furniture manufacturers should refer to 40 CFR part 63, subpart JJ and the Federal Register that will list any proposed and/or final amendments to subpart JJ for applicable requirements.**

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## **APPLICABILITY**

- 1. After a facility has been determined to be a major source can it be redesignated as an area source?**

*No. If a facility is a major source and must comply with the Wood Manufacturing Operations NESHAP, it will always be subject to the requirements in the NESHAP. In order to avoid always having to comply with this standard, the facility would have to meet the criteria for an area source BEFORE its compliance date. The compliance dates are as follows:*

<i>Existing source that emits less than 50 tons of HAPs in 1996:</i>	<i>December 7, 1998</i>
<i>Existing source that emits 50 tons or more of HAPs in 1996:</i>	<i>November 21, 1997</i>
<i>New source:</i>	<i>December 7, 1995 or upon startup</i>

- 2. Does this rule apply to all HAPs or just to volatile HAPs (VHAPs)?**

*All HAPs must be used when calculating a facility's potential to emit to determine whether it is a major source. However, the emission limits in this NESHAP apply to VHAPs and not to non-volatile HAPs.*

- 3. If a facility is subject to the Wood Furniture Manufacturing Operations NESHAP will it also have to comply with the Flatwood Paneling NESHAP?**

*If the facility is still a major source on the compliance date for the Flatwood Paneling NESHAP, it may have to comply with that standard in addition to the Wood Furniture NESHAP that it is already complying with if it meets the applicability requirements for Flatwood Paneling.*

**4. How are the requirements for this NESHAP incorporated into the renewable operating permit application?**

*The NESHAP requirements will be outlined in your Title V permit after the first year of NESHAP implementation. Your permit will also establish the dates your semiannual compliance status reports will be due (January to June, postmarked by July 30; July to December, postmarked by January 30).*

**5. What should a facility do that is subject to the NESHAP but did not submit the initial notification report by September 2, 1996.**

*Submit the initial notification report as soon as possible.*

## **DEFINITIONS**

**6. Are shades a stain? (Telephone memo)**

*Shade stains do not meet part of the definition of a stain because they are not applied directly to the substrate. Usage of shade stains and emissions from these stains should be minimal in comparison to the primary coatings used by the facility. Any finishing material that does not meet the definition of a stain or fall into one of the other regulated types of coatings, is not restricted on its VHAP content. Some examples would be highlighting stain, wipe stain, glaze, filler, shade stain, and possibly others depending on how the material is used. The HAPs in the material would have to be accounted for in the averaging approach and in determining major source for HAPs.*

*Materials claimed to be exempt from the NESHAP limits such as shade stain, if found being used on bare substrate and not being compliant with the stain limit, will be reported as noncompliant.*

**7. What does the phrase “sufficiently strong” mean in the definition of a contact adhesive? (Almodovar)**

*By including the phrase “sufficiently strong”, EPA was referring to the fact that in order to bond the pieces together, you would not have to use clamps or any other type of device to hold the pieces together while the adhesive was drying.*

**8. Are printing inks regulated by Subpart JJ? (Neely)**

*It depends on the method of compliance selected by the affected source. Inks are considered finishing materials or coatings under Subpart JJ but if the chosen compliance method is “compliant finishing materials,” there are no specific VHAP content limits provided for inks (limits are provided for stains, sealers, topcoats, washcoats, basecoats, enamels, and thinners). If this compliance option is selected, VHAP emissions from printing inks are not regulated by Subpart JJ. However, if one of the other three options for limiting VHAP emissions from finishing operations is selected (averaging, control system, or combination), printing inks are regulated by Subpart JJ.*

**WORK PRACTICE STANDARDS**

**9. If a facility is using all compliant coatings does it still have to develop a work practice implementation plan?**

*Yes, every facility subject to this NESHAP must meet all of the work practice standards.*

**10. When must the work practice implementation plan be submitted?**

*The work practice implementation plan must be developed within 60 days after the facility’s compliance date. This plan is not required to be submitted but must be kept on site and be available for an inspector’s review.*

**11. If the NESHAP amendments don’t go into effect until late December, do I have to track all organic solvents?**

**APPLICATION TECHNIQUES**

**12. Is transfer efficiency regulated under the NESHAP?**

*Transfer efficiency is not included in the rule. However, it is indirectly regulated by the ban of using conventional air spray guns except for a few exceptions.*

**13. Does air assisted airless spray equipment need to operate with a shaping air pressure of 10 psi to comply with the NESHAP?**

*No, just HVLP.*

**14. Must a facility use only HVLP spray equipment for production operations? What types of spray equipment are considered to be compliant under the NESHAP? (Implementation)**

*No, the following types of application equipment can be used:*

*Airless Spray Application  
Air-Assisted Airless Spray Application  
Electrostatic Spray Application  
Electrostatic Bell or Disc Application  
Heated Airless Spray Application  
Roller Coating  
Brush or Wipe Application  
Dip-and-Drain Application  
High-Volume Low-Pressure (HVLP)\**

*\*HVLP spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.*

- 15. If a company uses conventional spray equipment under the 5% rule, is that calculated based on that specific coating used plant wide or the total volume of all coatings used at that facility?**

*Calculate based on the total volume of all coatings used at the facility.*

*Ex. If you use 100 gallons of finishing material at your facility, 5 gallons could be applied by conventional guns.*

- 16. If a piece of furniture is damaged and one whole section is replaced with new wood, is the coating of that new section considered repair under the NESHAP definition?**

*This would only be considered repair if the piece had already gone through the complete finishing process or if stain had already been applied. Otherwise, this is not repair and a conventional spray gun could not be used.*

- 17. Under the rule aerosol cans are exempt, but what about other types of spray applicators like rechargeable refillable canisters?**

*Aerosol cans are only exempt for touch up and repair. All aerosol spray glues are exempt. There is no exemption for other types of spray applicators.*

- 18. Can splatter guns be used or must splatter stains be applied using an HVLP spray gun?**

*As long as the guns are below 10 psi.*

**19. Can a company use conventional spray equipment for applying adhesives?**

*Yes, unless you are a source who must comply with 326 IAC 8-2-12. In that case, you are prohibited from using conventional spray equipment.*

**TRAINING**

**20. What job descriptions require training under the NESHAP?**

*Anyone involved in finishing, gluing, cleaning, or washoff is required to be trained. This includes individuals who dispose of, spray, formulate, or mix HAP containing materials. It also includes the supervisors of those individuals.*

**21. Do all employees involved in gluing operations (including glues that do not contain VHAPs or VOCs) require training under the NESHAP?**

*If you are positive the employee(s) will never have any association with HAP containing material, they are not required to be trained.*

**22. Do temporary employees fall under the training requirements of the NESHAP?**

*Yes, anyone who is involved in finishing, gluing, cleaning, or washoff of VHAP containing materials must be trained.*

**23. Who can perform the training of employees to satisfy the NESHAP requirements?**

**24. What is an acceptable means of demonstrating successful completion of the employee training program?**

**25. If an employee of the company was hired before the compliance date but did not work in an area requiring training and was transferred to the finishing department after the compliance date, do they need to be trained before they work in that department or within six months of the compliance date?**

*As long as the employee was working for the company before the compliance date, they have 6 months after the compliance date to be trained. It does not matter what position they were previously working in.*

**26. Does certification of operator training carry over from one company to another or from one division of a company to another division in the same company?**

## INSPECTION AND MAINTENANCE

- 27. Under the inspection and maintenance plan, do air and/or oil leaks need to be addressed as well as coating and/or solvent leaks?**

*No, inspection and maintenance only applies to finishing materials, adhesives, and cleaning and washoff materials.*

- 28. The rule stipulates that a facility has three months to replace a piece of equipment under the inspection and maintenance plan. Does this include parts or must the entire unit be replaced to fall under this stipulation?**

*It generally applies to replacing the entire unit but it could apply to a major part. This will be reviewed on a case-by-case basis.*

## CLEANING AND WASHOFF

- 29. When cleaning or refurbishing spray booths, what type of solvents can be used?**

*To clean spray booths, you may not use compounds containing more than 8.0% VOC by weight.*

*If you are refurbishing the strippable spray booth coating, you may use 1.0 gallon or less of organic solvent per booth to prepare the booth for the new coating.*

*There is also a 0.8 lb VOC/lb solids as applied limit for the actual strippable spray booth coating.*

- 30. Are solvents not used for coating operation cleanup required to be tracked under the solvent accounting system?**

*VHAP containing solvents used for cleanup of equipment used for coating and contact adhesive application on wood furniture other than spray booths are required to be tracked. Also, none of the solvents listed on Table 4 are allowed to be used in cleanup. (e.g. methylene chloride, carbon tetrachloride, or benzene)*

- 31. Is the cleaning of glue or coating overspray off of plastic surfaces considered chemical washoff?**

- 32. Under the NESHAP, only 1 gallon of solvent can be used for booth refurbishment. If a company has a double booth, can two gallons of solvent be used for booth refurbishment?**

*It depends on how your booth is permitted.*

- 33. When refurbishing a spray booth, is the type of solvent used restricted under the 8% VOC rule?**

*No, spray booth solvents are not restricted by the 8% VOC rule. But, you cannot use the materials listed as excluded from cleaning and washoff solvents. You also may only use 1 gallon of material per booth.*

## **FORMULATION ASSESSMENT PLAN**

- 34. If two separate plants are combined under one air permit, does the company determine a formulation plan based on each plant separately or one combined facility?**

*If the permit defines the plants as one source, then the formulation plan is based on the facilities combined, as one source.*

- 35. Are the chemicals in glues and inks to be included in the formulation assessment plan?**

*The Formulation Assessment Plan (FAP) only applies to finish operations and the materials used there. VHAPs found in adhesives should not be included. VHAPs of potential concern found in inks (since inks are considered coatings) must be accounted for in the FAP.*

- 36. If a facility uses a chemical in excess of the de minimus level cap, will the company be cited by the regulatory officials?**

*Not necessarily. The facility must submit an explanation for why and by how much the de minimus level or the baseline was exceeded. If the facility meets those reasons defined in the NESHAP, the facility may not have to take further action.*

*If the exceedance does not meet reasons found in the NESHAP, the facility may be required to supply additional information.*

Questions 37 - 42 are direct quotes from the EPA guidance, Wood Furniture Manufacturing

**37. What level of VHAPs of Potential Concern in the finish material must be included on the Formulation Assessment Plan?**

*Wood Manufacturers only have to track usage of those VHAP that are present in a finishing material in a large enough quantity that it must be reported on the material safety data sheet (MSDS).*

**38. Are VHAPs of Potential Concern in glue reportable?**

*VHAP of potential concern used in adhesives should not be included in the baseline level.*

**39. Exactly what formaldehyde component is reportable?**

*Formaldehyde @baseline level of usage is based on the amount of free formaldehyde present in the finishing material when it is applied.@*

**40. What reporting requirement is there when the VHAP of potential concern level exceeds the baseline level?**

*The facility must notify the permitting authority in writing that they have exceeded their baseline level, the amount by which they have exceeded the baseline, and the reasons why.*

**41. What regulatory action takes place if the VHAP of potential concern level exceeds the baseline level?**

*None, if the facility has exceeded the baseline for any of the reasons cited below, and they are in compliance with any State regulations or requirements for that VHAP, the facility does not have to take any further action. They may also exceed the baseline level for any of the following reasons:*

- a. The exceedance is no more than 15.0 percent above the baseline level;*
- b. The facility's usage of the VHAP is less than the de minimis value for that VHAP as presented in Table 3-2;*
- c. The facility is in compliance with its State's air toxics regulations or guidelines for that VHAP; or*
- d. The VHAP is being used in a finishing material with a VOC content of no more than 1.0 lb VOC/lb solids, as applied.*

**42. What if the VHAP exceedance does not qualify for the exceptions listed?**

*If the increase above the baseline level is due to some reason other than those listed above, the facility must then refer to their permitting authority to discuss the reason for*



*the increase and whether or not there are practical and reasonable technology-based solutions for reducing the usage.*

#### VHAP OF POTENTIAL CONCERN IDENTIFIED BY INDUSTRY

Chemical	CAS No.	EPA de minimis, tons/yr
Dimethyl formamide	68122	1.0
Formaldehyde	50000	0.2
Methylene chloride	75092	4.0
2-Nitropropane	79469	1.0
Isophorone	78591	0.7
Styrene monomer	100425	1.0
Phenol	108952	0.1
Diethanolamine	11422	5.0
2-Methoxyethanol	109864	10.0
2-Ethoxyethyl acetate	111159	5.0

#### COMPLIANCE OPTIONS

- 43. If a facility has 14 booths plus 2 touch up booths, which booths must be used for the averaging calculation?**

*The averaging calculation is for the entire facility and is not broken down by emission points. Therefore, all 16 booths must be included for the averaging calculation.*

- 44. What do I do with noncompliant coatings and adhesives I have on site?**

- 45. I formulate my own washcoat. How do I prove it is compliant?**

*To prove a washcoat, basecoat, or enamel that you formulate on-site is compliant, you must use a compliant finishing material and thin it with a thinner with a VHAP content of no more than 3.0%. If you follow this, you do not need to know the VHAP content of the washcoat as long as you have records of the compliant finishing material and the less than 3.0% thinner. If you had purchased the washcoat, then you must maintain records to show it is compliant.*

**46. Do all “stain” products fall under the 1.0 lb VHAP/lb. solid limitation?**

*They must meet the definition of a stain. This means the stain has a solids content by weight of 8% or less and the material is applied directly to the substrate. A stain could include (but is not limited to) nongrain raising stains, equalizer stains, prestains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.*

*If a stain does not meet this definition or does not fall into one of the other regulated types of coatings, it is not restricted on VHAP content. Some examples of materials that may not be regulated would include highlighting stain, wipe stain, glaze, filler, shade stain, and possibly others depending on how the material is used.*

*The HAPs in the material would have to be accounted for in the averaging technique and in determining whether you are a major source for HAPs, but the material would not have to be HAPs compliant. The supplier will have to furnish a fact sheet showing the HAPs content.*

**47. Do glazes or wiping stains fall under the NESHAP requirements if they are applied over a pre-applied coating? (Implementation)**

*Typically, the wiping stain is a higher solids stain that is used in relatively small quantities. These stains are not subject to an emission limit under the NESHAP because:*

- 1. they typically have a higher solids content than the 8.0% limit specified in the NESHAP for stains, and*
- 2. they are not applied directly to the substrate.*

*However, some facilities refer to the initial stain that is applied to the substrate as a wipe stain. In these cases, the wipe stain is subject to an emission limit if the solids content of the coating is no more than 8.0% by weight.*

*Remember, emissions from these sources should be minimal in comparison to the primary coatings.*

**48. The NESHAP stipulates that if you formulate washcoats, basecoats, or enamels onsite, you can use solvents with 3% or less VHAP content and automatically be in compliance. What is considered formulating onsite?**

*Formulating onsite means you are actually changing the characteristics of the material to make a washcoat, basecoat, or enamel. For example, formulating a sealer into a washcoat is considered onsite formulation. But thinning an enamel is not.*

*If you are mixing stains or other finishing materials besides the three listed above, you must have CPDS of the materials you are mixing together and you must also have records of calculations to show the 1:1 ratio.*

- 49. Does the 3% formulation rule apply to coatings used in continuous coating operations?**

*No, only applies to washcoats, basecoats, and enamels.*

- 50. Does the 3% rule apply to all coatings?**

*No, only applies to washcoats, basecoats, and enamels.*

- 51. If a company tints or mixes coatings onsite, what must a company supply to comply with the CPDS requirements?**

*You must keep CPDSs of coatings and thinners as well as calculations showing the mixed material meets the 1:1 ratio.*

- 52. Do wood stabilizers fall under the NESHAP 1 to 1 ratio?**

*No, the material must be listed on the chart (Table 3-1 in the Implementation Document) or fall under the definition. But if you are averaging, you must include all HAP containing material.*

- 53. How do we calculate the VHAP as applied content of coatings?**

- 54. If a company is using the averaging method of compliance, are they required to meet the averaging requirements starting at the compliance date or from the first of that month when averaging record keeping must start under the NESHAP requirements?**

*You must meet the averaging requirements from the first day of the month when record keeping must start (December 1, 1998).*

- 55. If a product data sheet (which is only required to list noncarcinogenic HAP contents of 1% or greater) indicates that the solvent contains 0% HAPs, can a company use**

**it for formulation without concern of exceeding the NESHAP requirements for coatings?**

- 56. If a facility uses 1.8 lb VHAP/lb solid contact adhesive for products under the flammability requirements, can that facility use these same adhesives for products that do not fall under the flammability requirements?**

*No*

- 57. Does the NESHAP record keeping requirements for solvent accounting, washoff accounting, and the inspection and maintenance plan start at the compliance date or 60 days after when the implementation plan must be completed?**

*Record keeping must begin at the compliance date.*

- 58. What is considered to be a closed container under the NESHAP?**

*The NESHAP requires all containers used to store solvent or solvent containing materials to be closed when not in use. These containers are referred to as normally closed containers. They are containers that should be closed during most periods, but they may be open if an operator is filling or emptying the container.*

*There must be no gaps. To avoid gaps, push lids down to seal and prevent the escape of VHAP. Be aware, the OSHA definition of closed containers differs from the NESHAP definition.*

- 59. If a company has an open container that is being used periodically during production, is it compliant? What is the frequency of use that makes a container considered “in use” and therefore not required to be closed?**

*If a container is not kept closed, it must be used frequently (within minutes). Use pump cans when possible to avoid possible violations*

- 60. Does artistic work applied to furniture fall under the NESHAP?**

- 61. If two coatings (both containing solids and both NESHAP compliant) are mixed, is the resulting coating compliant?**

*Yes.*

## INSPECTIONS

**62. When will a compliance inspector take a coatings sample to check VHAP content?**

*An inspector could take a sample at any time. Certain conditions may indicate to the inspector that a sample should be taken. Most coatings are subject to the VHAP content requirement on an “as applied” basis. If purchase records of thinners indicate an increase in usage or if a company is allowing “ready to apply” coatings to be thinned without review by a supervisor, then samples of the coating may be requested.*

**63. When will a compliance inspector check the pressure at the tip of the HVLP spray gun?**

*An inspector could check the pressure at any time. Certain conditions may indicate to the inspector that a check with a pressure gauge may be necessary. Spray guns could be checked if a visual inspection of the spray gun operation indicates there is probable cause to check the gun. (i.e., If the line air pressure to the gun is at or above the gun manufacturer’s recommended level or if the overspray from the gun seems excessive, then the gun will be checked.) Certain guns have pressure gauges for use in checking pressure prior to the tip. If the pressure at the tip does not exceed this measured pressure, then the gun may be considered compliant. If the pressure is measured at the inlet to the gun and the gun manufacturer has presented data showing the correlation to tip pressure, then the gun may be considered compliant. In any case, actual air pressure at the tip will be the final determination.*

**64. What will happen if the compliance inspector determines the operator is not using the recommended spray application techniques?**

**65. What happens if the inspector finds violations?**

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